Elementary Geometry
Session 3

Topic	Activity Name	Page Number	Related SOL	Activity Sheets	Materials
Spatial Relationships	Square It	65	K.11, K.12, 1.16, 2.13	Square It	Playing board, grid paper, colored 1"-square markers
	Pick Up the Sticks	67	K.11, K.12, 1.16	Pick Up the Toothpicks	Toothpicks
	Partition the Square	69	K.11, 1.16, 1.21, 2.25, 3.18	Partition the Square	Paper
	Cutting Square Puzzles	71	3.18, 4.14, 4.16	Cutting Square Puzzles	Multicolored construction paper, scissors, glue
Tangrams	Make Your Own Tangrams	74	K.11, 1.16, 3.18	Directions for Making Tangrams	Paper, scissors
	Area and Perimeter Problems/Tangrams	76	2.12, 2.13, 4.13, 5.8, 5.10	Area and Perimeter with Tangrams	Tangram set
	Spatial Problem Solving with Tangrams	79	3.18, 5.10	Problem Solving with Tangrams Sheets 1, 2	Tangram set, puzzles
Symmetry	Butterfly Symmetry	83	2.21, 3.20, 4.21, 5.20		Construction paper, pencils, scissors, magazines, paint, crayons or markers
	Copy Cat	84	2.21, 3.20, 4.21, 5.20		Paper, ruler, Mira
	Recover the Symmetry	86	2.21, 3.20, 4.21, 5.20		Paper, ruler, Mira
	Folded Figures	89	2.21, 3.20, 4.21, 5.20	Folded Figures	Paper, ruler, Mira
	Symmetry and Right Angles in Quadrilaterals	91	1.16, 2.21, 3.20, 4.15, 5.14, 5.15	Quadrilateral Patterns Sheets 1, 2, 3	Scissors, file cards
	Origami: Making a Square	96	K.11, 1.16, 2.21, 3.18, 3.20	Folding a Square	Scissors, non-square pieces of paper
	Origami: Making a Heart	98	K.11, 1.16, 2.21, 3.18, 3.20	Making a Heart	Scissors, non-square pieces of paper

Topic: Spatial Relationships

Description: To build spatial visualization skills, students need a wide variety of experiences, including building and dissecting figures from different perspectives. In these activities, participants will explore spatial relationships by playing a strategy game with squares, solving a match stick triangle puzzle, partitioning squares into smaller squares, and using square dissection puzzles.

Related SOL: K.11, K.12, K.13, 1.16, 2.13, 2.25, 3.18, 4.13, 4.14, 4.16, 5.8, 5.10

Activity: Square It

Format: Small Group

Objectives: Participants will recognize squares and gain practice in visualization. As an extension, students will determine the area of a square by counting the number of square units needed to cover it.

Related SOL: K.11, K.12, 1.16, 2.13

Materials: Playing board, Square It Activity Sheet or 8 x 11 one-inch grid paper, and colored one-inch square markers of two different colors.

Time Required: Approximately 15 minutes

Directions:

1) Players choose who starts. Play rotates clockwise.
2) Player places a marker of his or her color on a vacant box on the playing board. Players alternate placing markers.
3) The winner is the player to first recognize a SQUARE on the board where all four corners are his or her color. Players check for "squareness" by counting the lengths of the sides. Winning squares may range from 2 x 2 to 7 x 7.
4) (Optional) The winning player must state the area of the winning square.

Square It

Activity: Pick Up the Toothpicks

Format: Small Group

Objectives: Participants will recognize triangles and gain practice in visualization by picking up varying numbers of toothpicks to yield a certain number of triangles.

Related SOL: K.11, K.12, 1.16

Materials: 11 toothpicks per participant, Pick Up The Toothpicks Activity Sheet

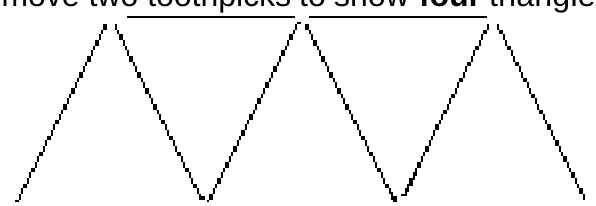
Time Required: Approximately 10 minutes

Directions:

1) Pass out 11 toothpicks per participant. Tell them to use the physical materials suggested as they work through the problems posed. They should not consider this activity to be concerned with mental, spatial-visualization skills -- they should actually use the materials.

2) Discuss the directions on the Activity Sheet. Eleven toothpicks are arranged as shown to give five triangles. For each problem begin with the original 11-stick configuration and

   A. remove two toothpicks to show **three** triangles;
   B. remove one toothpick to show **four** triangles;
   C. remove three toothpicks to show **three** triangles;
   D. remove two toothpicks to show **four** triangles.



3) Be sure to discuss the fact that all the sides don't have to be the same length in order for a three-sided figure to be a triangle.

Pick Up the Toothpicks

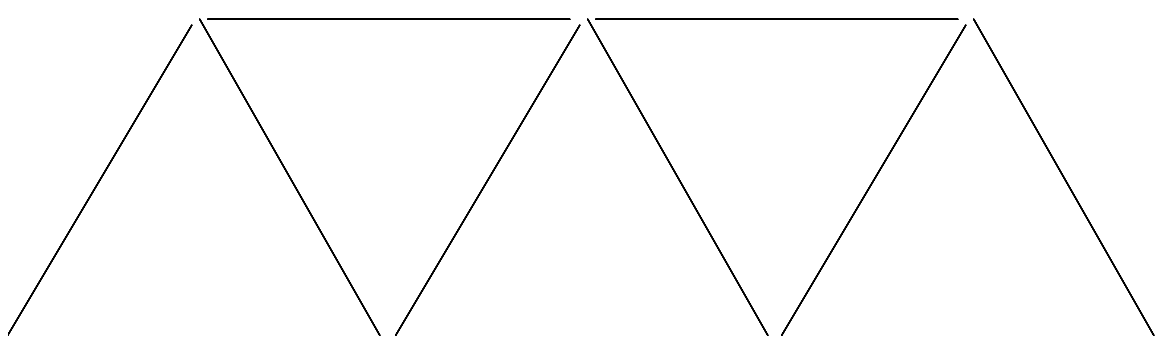
Eleven toothpicks are arranged as shown to give five triangles. For each problem, begin with the original 11-stick configuration and...

A. remove two toothpicks to show **three** triangles;

B. remove one toothpick to show four triangles;

C. remove three toothpicks to show **three** triangles;

D. remove two toothpicks to show **four** triangles.



Activity: Partition the Square

Format: Individual /Large Group

Objectives: Participants will partition squares into 7-15 smaller squares and will explain how they know that the smaller figures are really squares.

Related SOL: K.11, 1.16, 1.21, 2.25, 3.18

Materials: Partition the Square Activity Sheet, scratch paper

Time Required: Approximately 30 minutes

Directions:

1) Distribute the Partition the Square Activity Sheet. Explain to the participants that they are to divide each square into smaller squares and that there are many ways to determine each number of squares. Use the two sample partitions to point out that the squares don't have to be the same size, just that four sides of each square must be congruent, and that overlaps will not count.

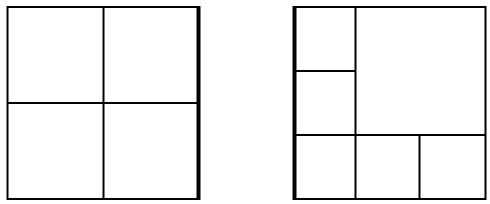
2) Circulate around the room, referring participants to the two samples if they need assistance. Also, look for non-square rectangles and remind the participants that all four sides of a square are congruent.

3) After they have had a few minutes to work, ask the participants to share their solutions. Start out with labels 7 - 15 and ask for a volunteer to do each one. Ask participants to add their method if they have a different way of partitioning than the one shown.

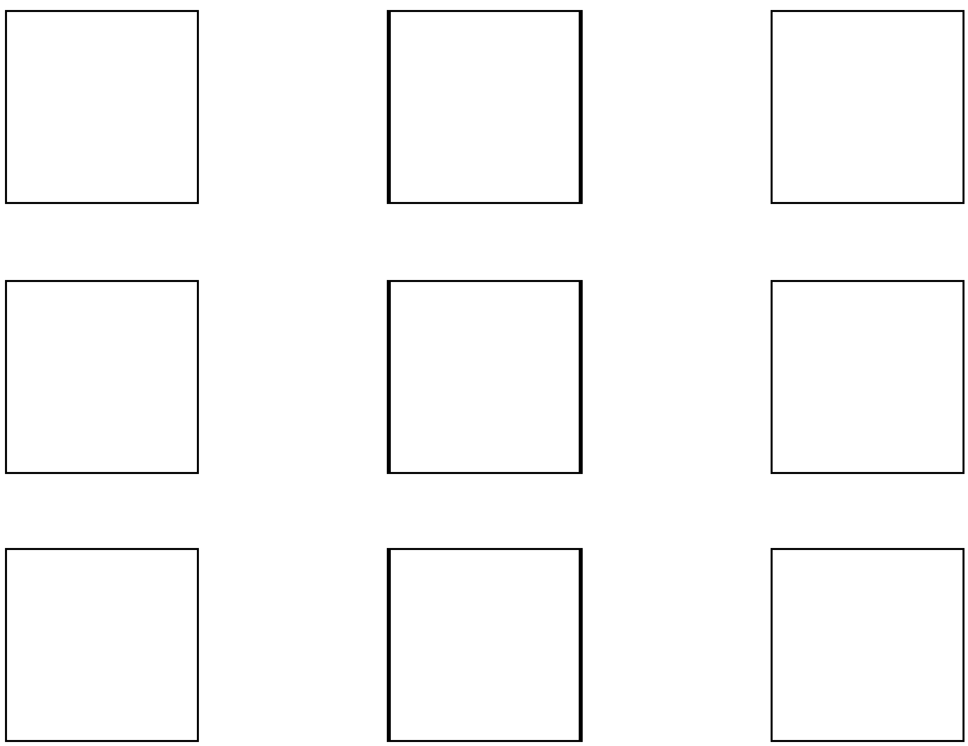
4) After all solutions have been shared by the participants, challenge the group to justify that each really is composed of squares. Tell them that you will allow them to assume that angles that look like right angles are right angles. Perhaps the simplest way of justifying four congruent sides in each of the drawn squares is to think of the original square as a unit square and then label the sides accordingly.

Partition the Square

A square can be partitioned into squares in more than one way. Shown below are squares partitioned into 4 smaller squares and 6 smaller squares.



Use these partitioning ideas to find ways to partition the nine squares below into 7 - 15 smaller squares.



Activity: Cutting Square Puzzles

Format: Small Group

Objective: Participants will investigate the relationships between the parts of a square to the whole square, of acute angles to right angles to obtuse angles, and of the diagonals to the sides of a square.
Note: This activity was adapted from "Geometry - A Square Deal for Elementary School" by Marcia E. Dana in *Learning and Teaching Geometry, K-12*, the 1987 NCTM Yearbook.

Related SOL: 3.18, 4.14, 4.16

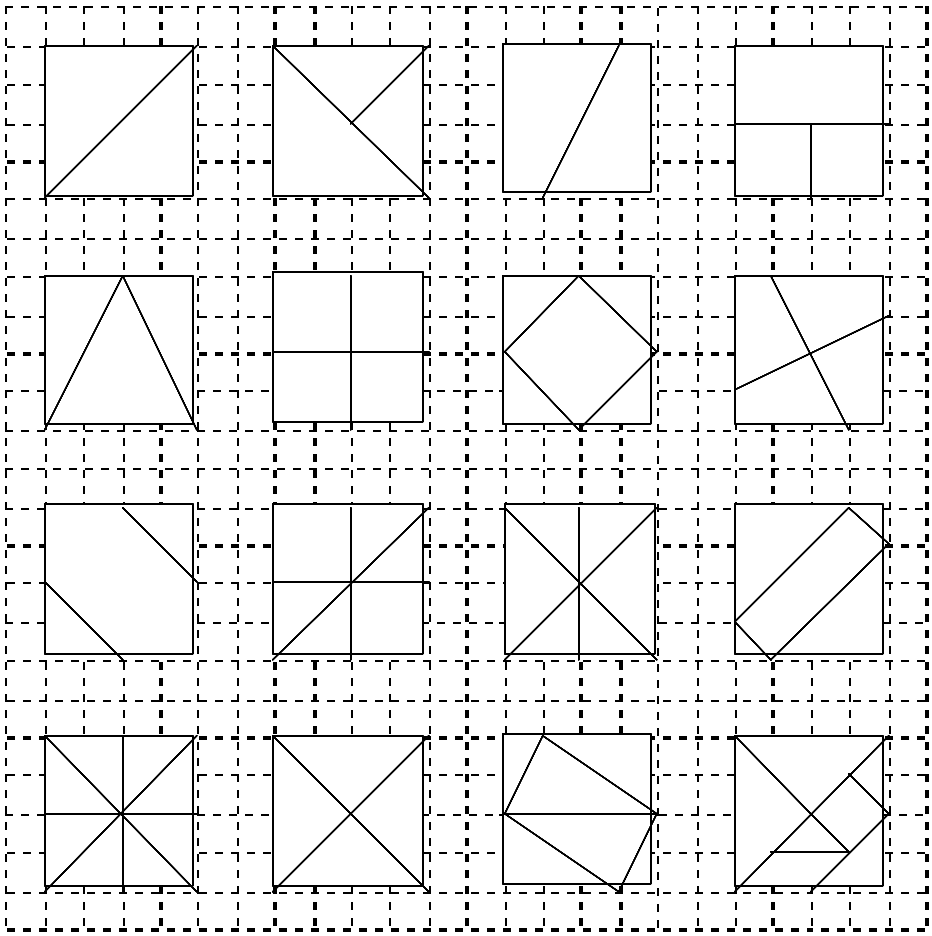
Materials: Construction paper or tag board puzzles of various colors in envelopes, scissors, a sheet of paper with the proper size square outlines on it, glue, Cutting Square Puzzles Activity Sheet

Time required: Approximately 30 minutes

Directions:

1) Make squares of various colors of construction paper or tag board and cut each square a different way as shown on the activity sheet. Put each puzzle in an envelope so that the participants may try as many as they wish. Note: The puzzles are shown on grid paper for clarity. They should be made on construction paper or tag board for participant use.

Possible Square Puzzles



Note that the last square is a tangram.

Topic: Tangrams

Description: Participants will make their own tangrams and will use them to explore area and perimeter relationships in geometric figures. They will engage in problem solving puzzles using tangrams.

Related SOL: K.11, 1.16, 2.12, 2.13, 3.18, 4.13, 5.8, 5.10

Activity: Make Your Own Tangrams

Format: Small Group

Objectives: Participants will construct their own tangrams and identify properties of the seven tangram pieces.

Related SOL: K.11, 1.16, 3.18

Materials: Paper suitable for folding such as copy paper (one sheet per student), scissors, one set of overhead tangrams, Directions for Making Tangrams Activity Sheet with directions for making tangrams

Time Required: 30 minutes

Directions:

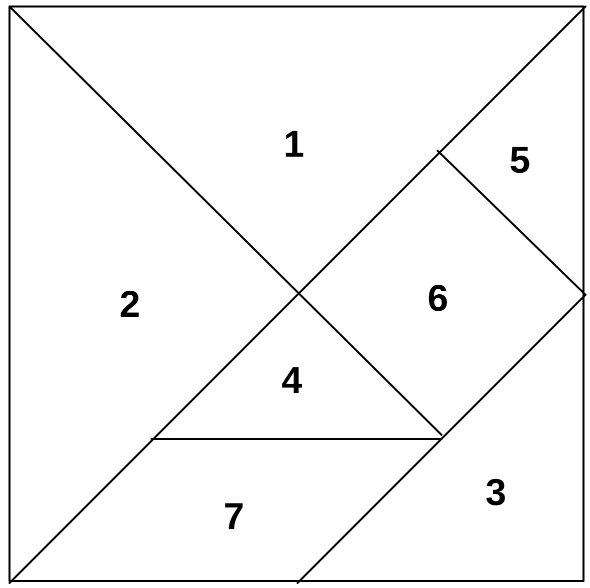
1) Distribute directions for making a set of the seven tangram pieces (Directions for Making Tangrams Activity Sheet) or give the directions orally for participants to follow individually as you make a master set as a demonstration.

2) Ask participants to make a square out of all seven tangram pieces.

3) Have participants label the pieces by number as indicated in the diagram below. They should also identify each by the name of the figure. Put a set of overhead tangrams on the overhead projector and discuss:
   - Identify each tangram piece by the name of the figure.
   - Which figures are congruent? How do you know?
   - Which triangles are similar? How do you know? Can you write a proportion to express the relationship?

4) Have participants find the measure of each angle of each figure. They should trace each figure and label the angle measures.

Directions for Making Tangrams



1. Fold the lower right corner to the upper left corner along the diagonal. Crease sharply. Cut along the diagonal.

2. Fold the upper triangle formed in half, bisecting the right angle, to form Piece 1 and Piece 2. Crease and cut along this fold. Label these two triangles "1" and "2".

3. Connect the midpoint of the bottom side of the original square to the midpoint of the right side of the original square. Crease sharply along this line and cut. Label the triangle "3".

4. Fold the remaining trapezoid in half, matching the short sides. Cut along this fold.

5. Take the lower trapezoid you just made and connect the midpoint of the longest side to the vertex of the right angle opposite it. Fold and cut along this line. Label the small triangle "4" and the remaining parallelogram "7".

6. Take the upper trapezoid you made in Step 4. Connect the midpoint of the longest side to the vertex of the obtuse angle opposite it. Fold and cut along this line. Label the small triangle "5" and the square "6".

Activity: Area and Perimeter Problems with Tangrams

Format: Individual/Small group

Objectives: Participants will express the area of each tangram piece as a fraction of the large composite square and will find the area of each tangram piece by using the square piece as the unit and then using the small triangle as the unit. This will require the application of the Pythagorean Theorem.

Related SOL: 2.12, 2.13, 4.13, 5.8,5.10

Materials: A set of tangrams for each participant, Area and Perimeter with Tangrams Activity Sheet

Time Required: 30 - 40 minutes

Directions:

1) Give participants the Area and Perimeter With Tangrams Activity Sheet. Make sure they also have a set of tangrams. Ask them to work alone or in small groups to complete the tasks outlined on the Activity Sheet. Circulate around the room helping participants who need assistance.

2) Invite participants to the overhead projector to describe how they found the answers.

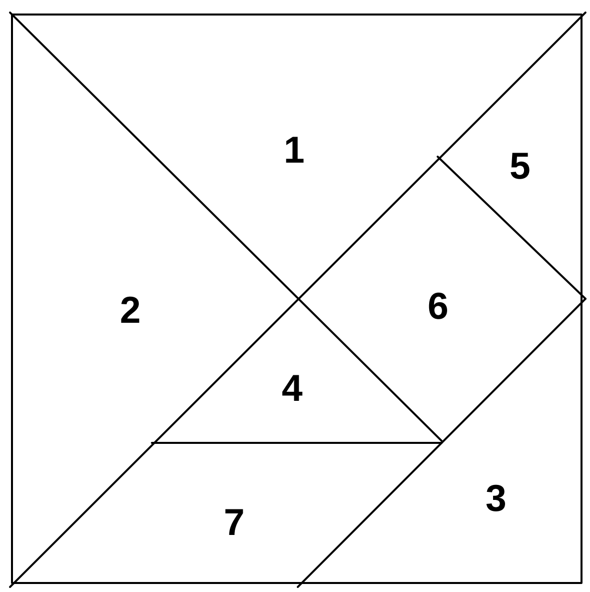
Area and Perimeter With Tangrams

1. If the area of the composite square (all seven pieces -- see below) is 1 unit, find the area of each of the separate pieces.

piece #	area
1	
2	
3	
4	
5	
6	
7	

2. If the smallest triangle (piece #4 or #5) is the unit for area, find the area of each of the separate pieces in terms of that triangle.

Piece #	area
1	
2	
3	
4	
5	
6	
7	



3. If the smallest square (piece #6) is the unit for area, find the area of each of the separate pieces in terms of that square. Enter your findings in the table below.

4. If the side of the small square (piece #6) is the unit of length, find the perimeter of each piece and enter your findings in the table.

piece #	area	perimeter
1		
2		
3		
4		
5		
6		
7		

Activity: Spatial Problem Solving with Tangrams

Format: Independent/Small Group

Objectives: Participants will create geometric figures with a subset of the tangram set. They will solve puzzles by arranging the set of seven tangrams to form the pictures given to them.

Related SOL: 3.18, 5.10

Materials: A set of tangrams for each student; Spatial Problem Solving with Tangrams Activity Sheet, Tangram Puzzles Activity Sheet

Time Required: Variable, allow 30 minutes to get started. Participants may work independently over a period of a week or so and turn in solutions at a later session.

Directions: Distribute Activity Sheets and have participants work individually or in small groups to solve the tangram puzzles.

Spatial Problem Solving with Tangrams

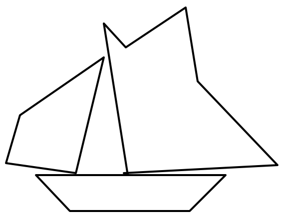
Use the number of pieces in the first column to form each of the geometric figures that appear in the top of the table. Make a sketch of your solution(s). Some have more than one solution while some have no solution.

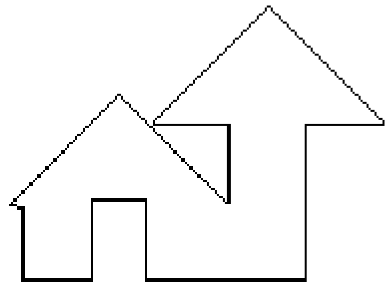
Make These Polygons

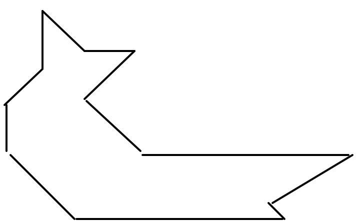
Use this many pieces	Square	Rectangle	Triangle	Trapezoid	Trapezoid	Parallel -ogram
2						
3						
4						
5						
6						
7						

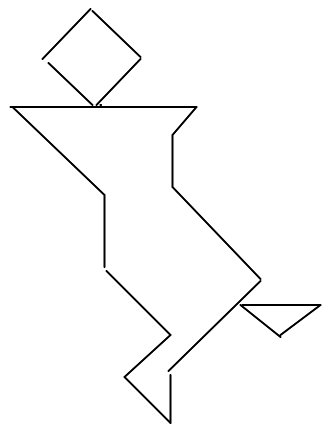
Tangram Puzzles

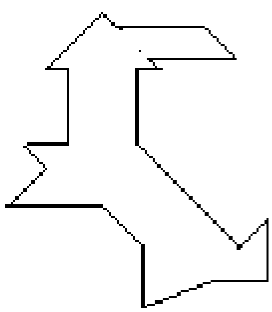
Can you make these figures with the seven tangram pieces? Make a sketch of your solutions.

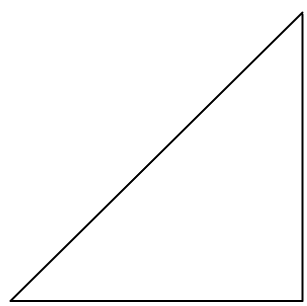
1. 

2. 

3. 

4. 

5. 

6. 

Design your own tangram picture. Trace the outline and give it a name. Submit the outline and a solution key.

Topic: Symmetry Using Paper Folding, Pattern Blocks, Miras, and Origami

Description: Participants will explore the concept of symmetry, a phenomenon that occurs frequently in nature. Butterflies, leaves, blossoms, and even the human body are symmetric. Since symmetric forms are pleasing to the human eye, many artists and architects incorporate symmetry in their designs. Even many national flags and corporate logos exhibit symmetry.

There are two types of symmetry: **line symmetry** (also called reflectional or mirror symmetry) and **point symmetry** (also called rotational symmetry).

Pattern Blocks: *Pattern blocks* are a set of blocks that consist of figures: a hexagon (usually yellow), a trapezoid (usually red) that is one-half the size of the hexagon, a rhombus (usually blue) one-third the size of the hexagon, a triangle (usually green) one-sixth the size of the hexagon, and another rhombus (usually tan). As their name implies, they are used in creating patterns, but they are also excellent for teaching tessellations, fractions, and several other concepts. In this section, we will use them for exploring symmetry.

Mirrors or Miras: Small mirrors are useful in checking line symmetry. If you are worried about using glass mirrors with children, there are several commercially available alternatives such as polished metal mirrors or Miras (a rectangle of translucent red plastic with a beveled edge at the bottom and attached rectangular sides to stabilize the reflector and serve as handles).

Origami: Origami is the Japanese art of paper-folding. Many of the figures that can be made are symmetric. Special origami paper may be purchased from teacher supply stores or most mail order math supply companies. A sheet of origami paper will be square, white on one side, and colored on the other side. It will make a sharp crease when folded properly and has stiffness to it so that it will hold the figure into which it is folded. If you are not able to locate origami paper, heavy wrapping paper may be cut into squares and used. In a pinch, patty paper works, but it is not a very good substitute because it does not hold its figure and does not have an obvious wrong side and right side.

Related SOL: K.13, 1.16, 2.21, 3.18, 3.20, 4.21, 5.19, 5.20

Activity: Butterfly Symmetry

Format: Small Group

Objectives: Participants will create symmetric cutouts and will identify the lines of symmetry.

Related SOL: 2.21, 3.20, 4.21, 5.20

Materials: Construction paper, pencils, scissors, magazines, paint, crayons or markers

Time Required: Approximately 30 minutes

Directions:

1) Divide the participants into small groups. Have them fold a piece of paper once and cut out any figure, beginning and ending on the folded edge. Have them unfold the paper and make observations about their figures. They should notice that there are matching parts. Tell them that since all the parts match when folded on a straight line, we say that the figure has line symmetry and that the fold is the line of symmetry. Ask the participants if their figures can be folded any other way so that the parts match.

2) Now repeat the folding and cutting activity using two folds. Again have the participants describe the figures they have created. Ask how many ways the figure can be folded so that the two halves match. (When the paper is folded twice, the cut figure will have two lines of symmetry with four matching parts.)

3) Have the participants find pictures in magazines and objects in the classroom that have line symmetry. Questions you might ask: What do we mean when we say that something has symmetry? What does a line of symmetry do? What does it show us? Could we draw a line of symmetry anywhere on a symmetrical figure?

4) (An additional activity for students in the classroom). Use paper, scissors, and markers, crayons, or paint to create symmetrical butterflies for display on the bulletin board. As a class, find the lines of symmetry on each butterfly and discuss.

Activity: Copy Cat

Format: Small Group

Objectives: The participants will create a symmetrical figure, piece by piece, using pattern blocks to verify the figure's symmetry.

Related SOL: 2.21, 3.20, 4.21, 5.20

Materials: About 30 pattern blocks per group, paper, ruler, Mira, optional overhead pattern blocks

Time Required: Approximately 30 minutes

Directions:

1) Give each participant a piece of paper and some pattern blocks. Have them make a fold line with the paper and then spread it out flat or draw a thick vertical line down the center of the paper. Have them place a pattern block on the paper so that one of its edges lies along the fold line. Another participant should place another pattern block on the other side of the line so that it forms a design that is symmetrical along the line. Explain that the block should be placed so that when you trace the blocks and fold the paper along the line, the two traced figures will cover each other exactly. Trace around the two blocks, fold the paper, and verify that the design is symmetrical.

   Example:

2) Unfold the paper, and put the two blocks back in the same positions. Have another person in the group place a block on one side of the line of symmetry so that it is touching at least one of the blocks already placed there. Have another person place a block on the other side to "balance" that block and keep the design symmetrical. Continue to add blocks to the design and check its symmetry.

3) Change the rules so that participants place two or more pattern blocks on one side of the design during each turn.

4) Challenge the participants to make a design that is symmetrical without using a fold line or drawn line. Have them use a Mira to check the symmetry of their design.

5) Using the Mira, have the participants find the lines of symmetry for their pattern blocks. For this activity, the Mira is placed on top of the block and moved around until the image matches the block. Have the participants trace the block on paper and record the lines of symmetry of each block. Discuss the results with the whole group.

Activity: Recover the Symmetry

Format: Small Group

Objectives: Participants will explore symmetry concepts using pattern blocks by verifying that a design has line symmetry.

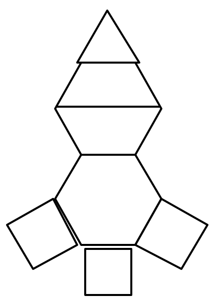
Related SOL: 2.21, 3.20, 4.21, 5.20

Materials: About 30 pattern blocks per group, paper, ruler, Mira, optional overhead pattern blocks, Rules for Recover the Symmetry Activity Sheet

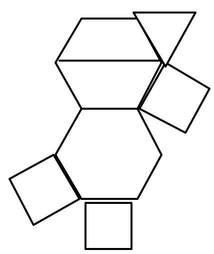
Time Required: Approximately 15 minutes

Directions:

1) Before meeting with the group, build two identical symmetrical figures on the overhead projector. Then move two blocks in one of the figures to make it asymmetrical. For example:



Symmetrical Design



Asymmetrical Design

2) Display both figures and identify them as symmetrical and asymmetrical, respectively. Identify the line of symmetry on the symmetrical design.

3) Have the participants suggest how they might move two blocks in the asymmetrical design to make it symmetrical. Test the results.

4) Distribute the Recover the Symmetry Rules. Discuss the rules with participants.

5) After playing several rounds of Recover the Symmetry, discuss the games with the class. Other questions for discussion are:

- What was easier, creating the original design or recovering the symmetry? Why?
- Did you ever find more than one line of symmetry in a design? If so, describe how this happened.
- What helped you decide how to move the blocks to recover the symmetry?
- When you made an asymmetrical figure symmetrical, did you recreate the original figure or did you find a new one? Why do you think this happened?

Recover the Symmetry Rules

1. This is a game for two players.

2. Together, the players build a symmetrical design using 12 pattern blocks. It should be symmetrical in both shape and color.

3. Players can use a Mira to check the symmetry of the design. They should locate all lines of symmetry in the design.

4. One player looks away while the other player moves 3 blocks so that the design is not symmetrical.

5. The player who wasn't looking then tries to move 3 blocks to make the design symmetrical again.

6. After the symmetry has been recovered, players talk over these questions with each other: Is the new design symmetrical? Were the same blocks moved to recover the symmetry? Is the final design the same as the original one?

7. Play several rounds of Recover the Symmetry and discuss your games with the group. Other questions for discussion are:

   - What was easier, creating the original design or recovering the symmetry? Why?

   - Did you ever find more than one line of symmetry in a design? If so, describe how this happened.

   - What helped you decide how to move the blocks to recover the symmetry?

   - When you made an asymmetrical figure symmetrical, did you recreate the original figure or did you find a new one? Why do you think this happened?

Activity: Folded Figures

Format: Small Group

Objectives: Participants will construct the other half of pattern block designs by imagining that the design is unfolded or that a mirror is placed along a given line of symmetry.

Related SOL: 2.21, 3.20, 4.21, 5.20

Materials: About 30 pattern blocks per group, paper, ruler, Mira, Folded Figures Activity Sheet, optional overhead pattern blocks

Time Required: Approximately 15 minutes

Directions:

1) Divide the participants into small groups. Distribute Folded Figures Activity Sheet to each individual and about 30 pattern blocks to each group. Tell the participants that the designs they see on the Activity Sheet are pattern block designs that have been folded along the line of symmetry. It is their task to imagine what each design would look like unfolded and then sketch it. First of all, recreate the design using the pattern blocks as in the previous activity. Then sketch what they think the other side looks like. Check it by removing the pattern blocks and placing a Mira along the line of symmetry. If Miras or mirrors are unavailable, the figure may be folded along the line of symmetry and held up to a light to check for congruence.

2) Have the participants complete the remaining figures and check their symmetry. Display the results on the overhead.

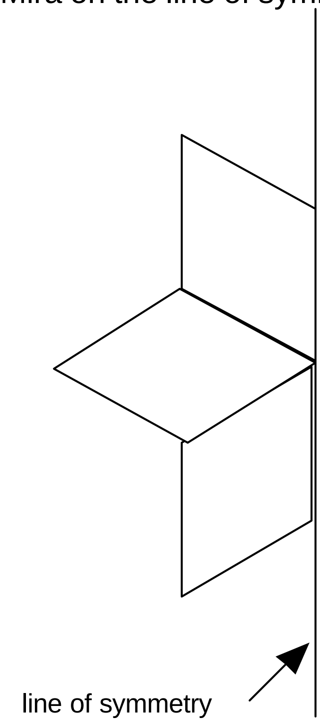
3) Ask the participants to check to see if any of the designs have more than one line of symmetry.

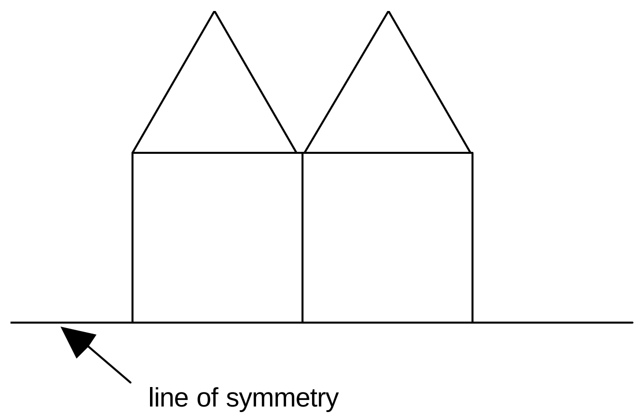
4) Have the participants create an original design having only one line of symmetry. Have them check the symmetry using a Mira or by folding along the line of symmetry.

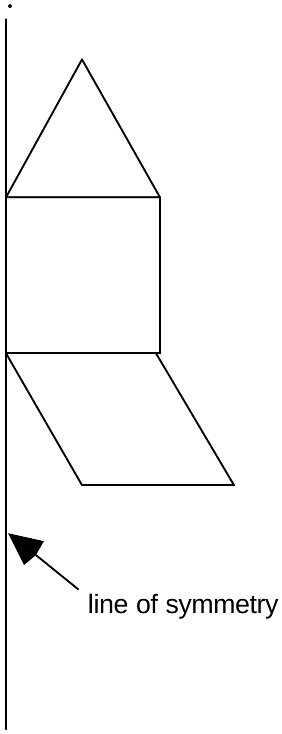
5) Have the participants create an original design having two lines of symmetry and check it by folding along each line of symmetry in turn.

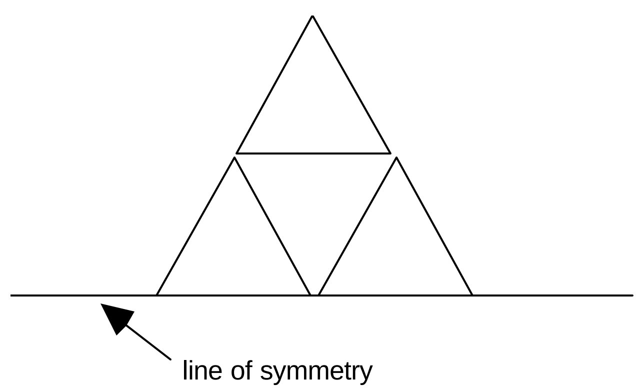
Folded Figures

These pattern block designs were folded along the indicated line of symmetry. Imagine what each design would look like unfolded and sketch it. Check your work by placing a Mira on the line of symmetry.









Activity: Symmetry and Right Angles in Quadrilaterals

Format: Small Group

Objectives: Participants will fold various cut-out quadrilaterals to determine how many lines of symmetry each has and use square corners to determine how many right angles each has.

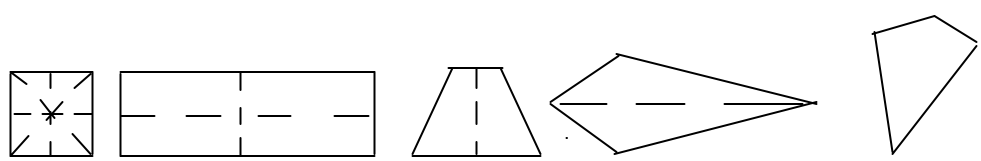
Related SOL: 1.16, 2.21, 3.20, 4.15, 5.14, 5.15

Materials: Scissors, Quadrilateral Patterns Activity Sheets 1, 2, and 3 or cut-out quadrilaterals, square corners (e.g., a piece of paper or a file card)

Time Required: Approximately 15 minutes

Directions:

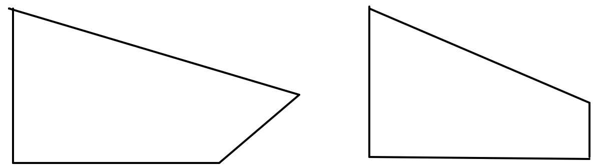
1) Give each participant Symmetry and Right Angle Activity Sheets 1, 2, and 3 and a pair of scissors and have them cut out each quadrilateral or give each participant a set of cutout quadrilaterals. Have them find as many ways as possible to fold the figures in half so the halves match, i.e., find all the lines of symmetry. Discuss the results.



Four Two One None

2) Give each participant a square corner and the figures from Step 1. Ask them to find a quadrilateral that has an angle that is
   a) a right angle (the same as a square corner)
   b) greater than a right angle
   c) less than a right angle.

3) Add figures such as the following:



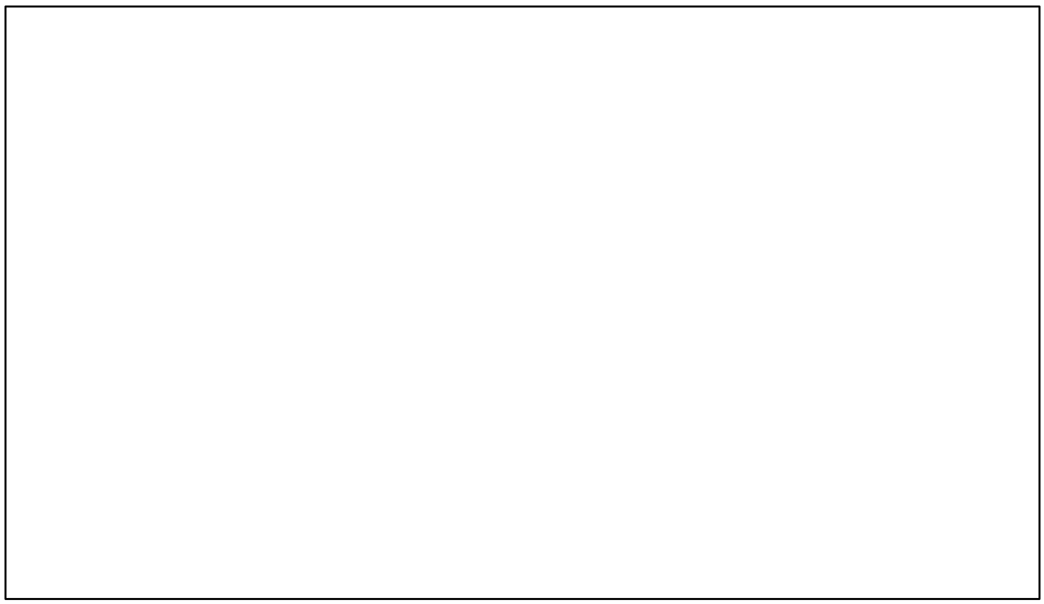
One right angle   Two right angles

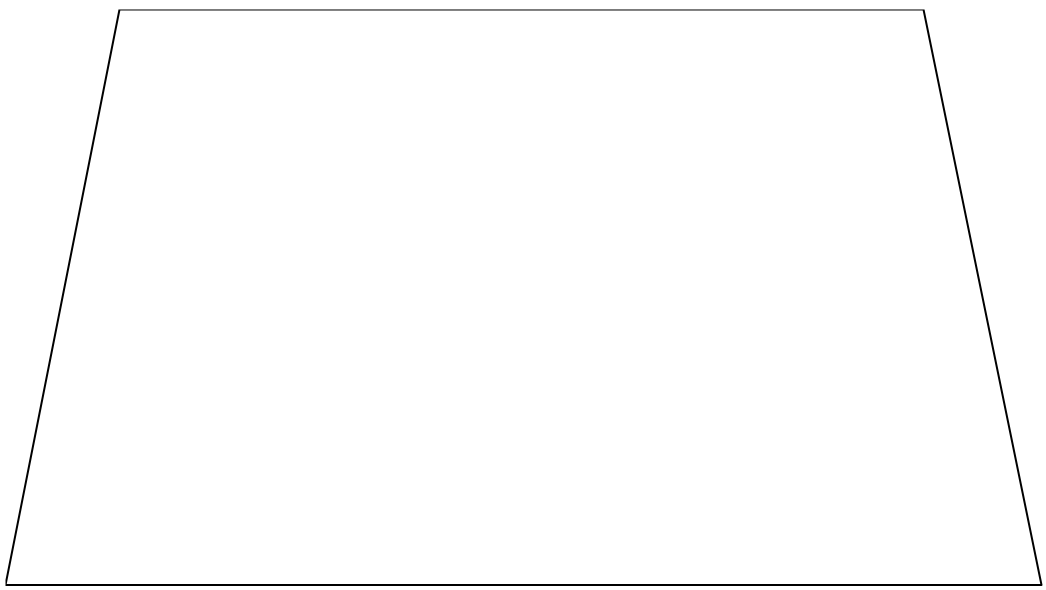
Ask the participants to find a quadrilateral that has exactly

a) one right angle,
b) two right angles, and
c) four right angles.

How many different quadrilaterals can they find that have four right angles? What are the special names of these quadrilaterals?

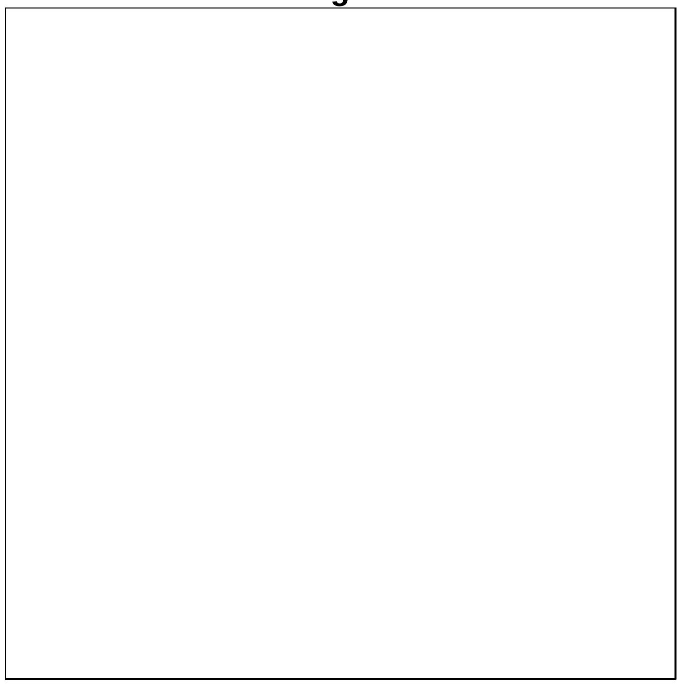
Quadrilateral Patterns

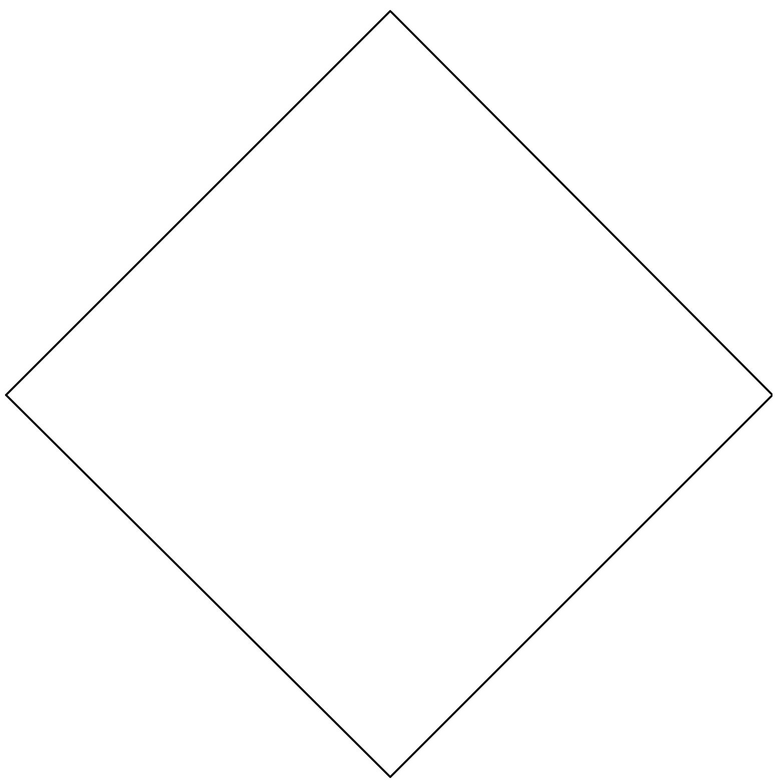




Quadrilateral Patterns

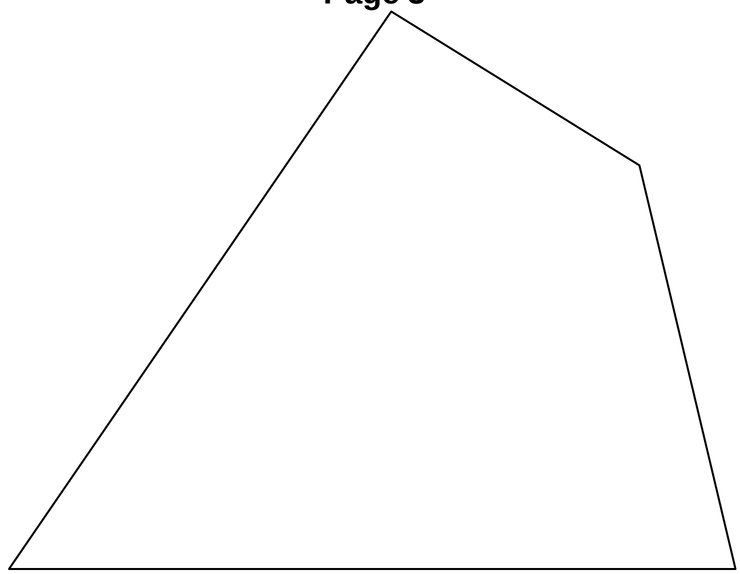
Page 2

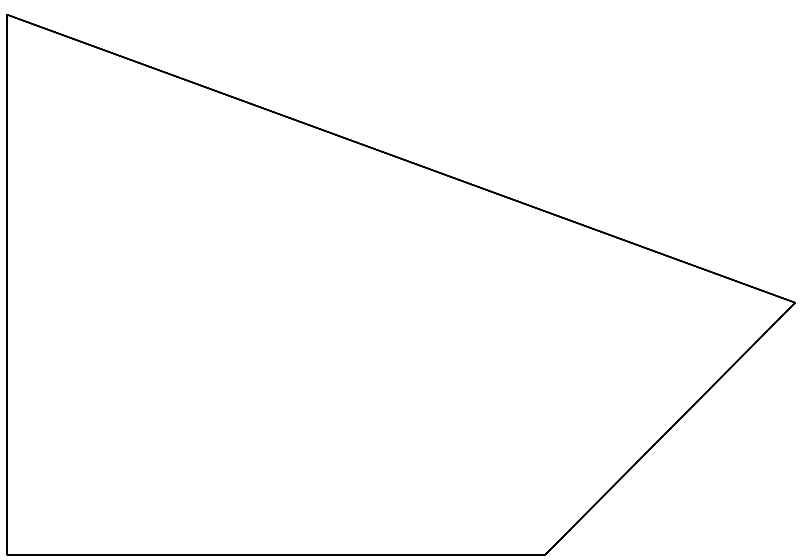




Quadrilateral Patterns

Page 3





Activity: Origami: Making a Square from a Non-Square Rectangle

Format: Individual/Small Group

Objectives: Participants will use non-square rectangular paper to construct a square through paper folding. They will also determine how many lines of symmetry in the square.

Related SOL: K.11, 1.16, 2.21, 3.18, 3.20

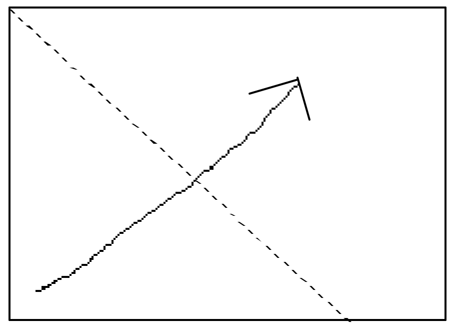
Materials: Scissors, non-square rectangular piece of paper, Folding a Square Activity Sheet

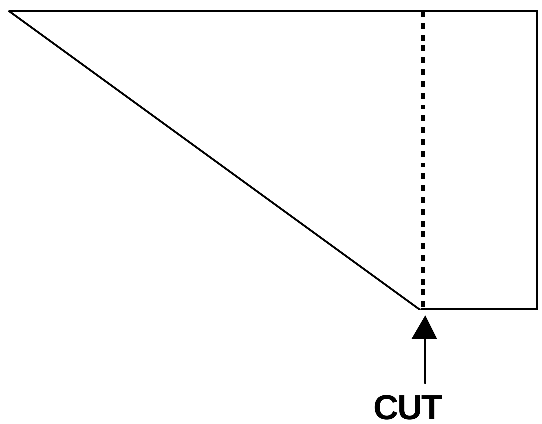
Time Required: Approximately 5 minutes

Directions:

1) Give each participant a pair of scissors and a non-square rectangular piece of paper. Have them fold the corner to the opposite side to form a triangle as shown on the Activity Sheet. Then have them cut along the vertical line to find as many ways as possible to fold the square in half so the halves match, i.e., find all the lines of symmetry.

Folding a Square





Activity: Origami: Making a Heart

Format: Individual/Small Group

Objectives: Participants will identify geometric figures and concepts related to symmetry used in paper folding.

Related SOL: K.11, 1.16, 2.21, 3.18, 3.20

Materials: Piece of paper, 8½ inches by 2½ inches, and Making a Heart Activity Sheet

Time Required: Approximately 5 minutes

Directions:

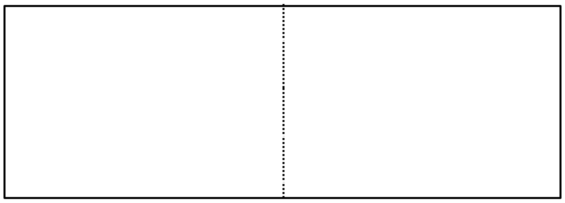
1) Give each participant a piece of paper, 8½ inches by 2½ inches. Have them fold the heart as shown on the Activity Sheet.

2) At the first fold, point out the line of symmetry.

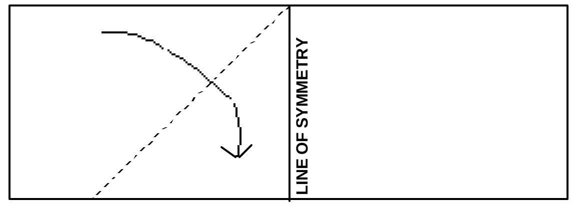
3) At step 4, discuss the pentagon formed.

4) At step 5, point out the isosceles right triangle formed.

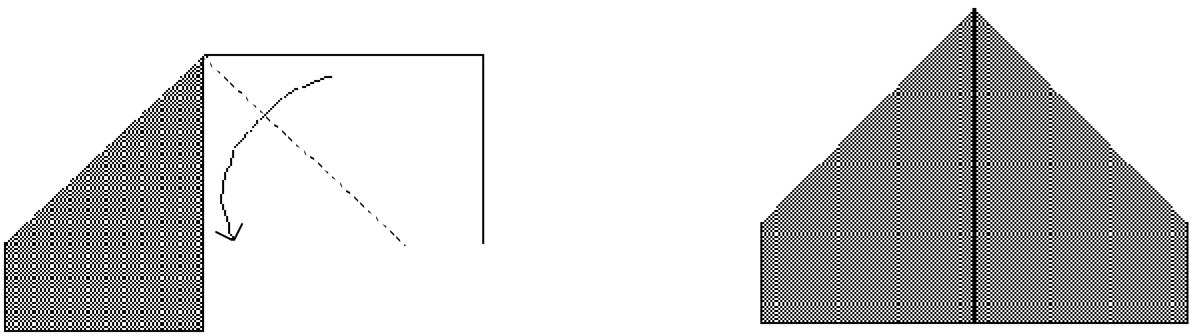
Origami: Making a Heart



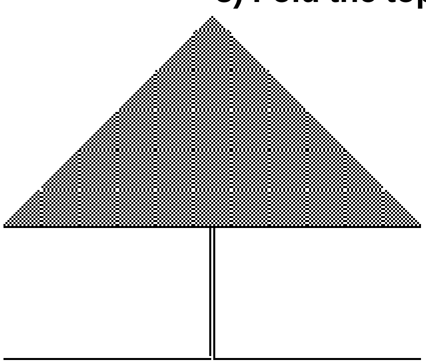
1) **Fold the right edge to meet the left edge Unfold.**



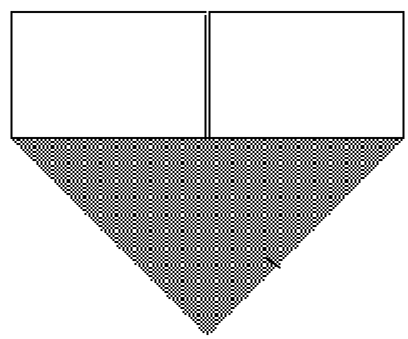
2) **Fold the top left edge down to meet. the center crease (the line symmetry).**



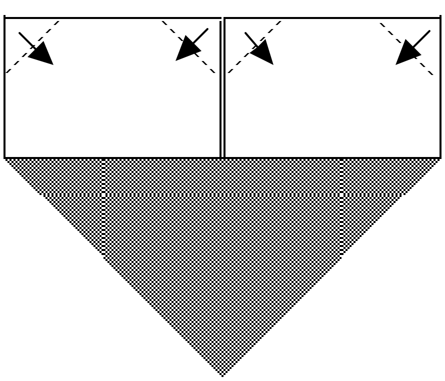
3) **Fold the top right down to meet the center crease.**



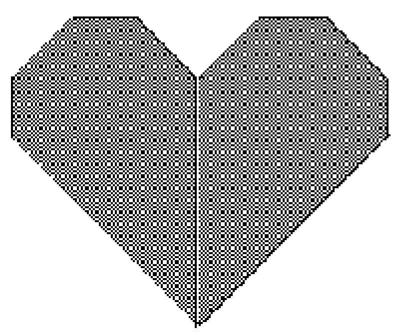
4) **Turn over.**



5) **Now rotate 180.**



6) **Fold the four corners at the top down into small triangles.**



7) **Turn the heart over.**